

REMARKS

Claims 1-8 are all the claims pending in the application.

Initially, the Examiner is respectfully requested to indicate that the drawings filed on October 6, 2003 have been accepted.

Claims 1, 3, 5 and 7 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kurose et al. (U.S. Patent 5,510,140).

Applicant respectfully traverses the rejection and submits that the Kurose does not teach or suggest the present invention.

The present invention according to claim 1 is a method for manufacturing a magnetic recording medium in which a magnetic coating is applied on a nonmagnetic support, the magnetic coating including: a magnetic liquid containing a ferromagnetic powder and a binder; and an abrasive liquid containing an abrasive and the binder, the method comprising the steps of: subjecting the magnetic liquid to dispersion treatment; subjecting the abrasive liquid to dispersion treatment separately from the magnetic liquid, and then filtering the abrasive liquid; and then mixing the magnetic liquid and the abrasive liquid. The present invention according to claim 5 is a method for manufacturing a magnetic recording medium in which a magnetic coating is applied on a nonmagnetic support, the magnetic coating including: a magnetic liquid containing a ferromagnetic powder and a binder; and an abrasive liquid containing an abrasive and a solvent, the method comprising the steps of: subjecting the magnetic liquid to dispersion treatment; subjecting the abrasive liquid to dispersion treatment separately from the magnetic liquid, and then filtering the abrasive liquid; and then mixing the magnetic liquid and the abrasive liquid.

It is an object of the present invention to provide a method for manufacturing a

magnetic recording medium that has a smooth magnetic layer surface and excellent running durability and shows little wear of a head. The present invention forms an abrasive liquid capable of holding-down re-aggregation of abrasive particles, by putting air between abrasive particles by subjecting the stirrer-agitated abrasive liquid (which embroiled air) to an ultrasonic treatment method. Since holding-down the re-aggregation has become possible, removing bulk particles, such as a sintered compact, present in the abrasive liquid is realized by high accuracy filtering (1 μm or less), the advantageous effects of combining decreasing the wear and increasing the productivity have been achieved by the present invention. These effects of the present invention are evaluated by following evaluation methods: (1) carrier/Noise ratio (C/N) measurement; (2) thickness measurement; (3) running durability; (4) mag μ value; and (5) repeated HW.

Kurose discloses that the composition for forming a magnetic layer can comprise ferromagnetic powder, a binder, non-magnetic particles, such as abrasives, and a solvent. *See* col. 17, lines 23-24 and line 44, col. 24, line 63 to col. 25, line 17, and col. 26, line 26-29. That is, Kurose discloses a single magnetic coating composition comprising a binder, solvent, magnetic powder and abrasives. Thus, Kurose does not disclose a separate magnetic liquid or an abrasive liquid. Accordingly, Kurose does not disclose separately subjecting the magnetic liquid and an abrasive liquid or mixing together the separate liquids.

In addition, there is no disclosure in Kurose that would motivate one of ordinary skill in the art to prepare a separate magnetic liquid and abrasive liquid, separately subject the liquids to a dispersion treatment, filter the abrasive liquid prior to mixing it with the magnetic liquid, and then combine the liquids thereafter. Therefore, Kurose does not disclose, teach or suggest each and every element of the present invention according to claim 1 or 5.

Further, the Examiner asserts that it would have been obvious to one of ordinary skill in the art to include a filtering step in the process of Kurose and use a solvent because Kurose teaches that filtering constrains the amount of resultant abrasive and the importance of adding a solvent.

Kurose discloses a step of filtering a binder solution (filtering step I), a step of filtering a kneaded product (filtering step II), a step of filtering a dispersion (filtering step III), a step of filtering a viscosity adjusting solution (filtering step IV), and a step of filtering a paint composition (filtering step V). The binder solution is prepared by dissolving a binder resin in an organic solvent. In the kneading step, magnetic powder and abrasive are mixed with the binder solution. The kneading step is followed by a filtering step to remove agglomerates of solids from the kneaded product. Then, there is a dispersing step to disperse solids (e.g., magnetic powder) in the kneaded product. The dispersing step is followed by a filtering step to filter the dispersion through filter means to remove non-dispersed matter and to improve the dispersion of magnetic powder.

Since Kurose discloses filtering a single composition comprising a binder, solvent, magnetic powder and abrasives, there is no disclosure in Kurose that would motivate one of ordinary skill in the art to filter an abrasive liquid prior to mixing with the magnetic liquid. Not to mention, there is no teaching or suggestion that would motivate one of ordinary skill in the art to prepare a separate magnetic liquid and abrasive liquid, as discussed above. In fact, Kurose specifically discloses that the dispersing step is to disperse solids such as magnetic powder and non-magnetic powder (*see e.g.*, col. 32, lines 4-6), and that the filtering step is to filter the dispersion through filter means to remove non-dispersed matter, to improve the dispersion of magnetic powder and non-magnetic powder (*see e.g.*, col. 32, lines 30-34).

In view of the above, it is respectfully submitted that Kurose does not teach or suggest the present invention according to claims 1 or 5 or the claims depending therefrom.

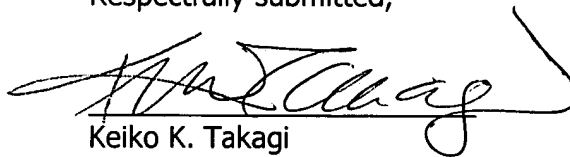
In addition, claims 2, 4, 6 and 8 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kurose et al. and further in view of Yorita et al. (U.S. Patent 5,772,900).

Each of claims 2, 4, 6 and 8 depend, directly or indirectly, from claims 1 or 5. Thus, it is respectfully submitted that these claims are patentable for at least the same reasons as claims 1 and 5. In addition, it is respectfully submitted that Yorita does not make up for the deficiencies of Kurose.

For the foregoing reasons, reconsideration and allowance of claims 1-8 is respectfully requested.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Keiko K. Takagi
Registration No. 47,121

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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